CONTENTS

12TH INTERNATIONAL SYMPOSIUM ON COLUMN LIQUID CHROMATOGRAPHY, WASHINGTON, DC, JUNE 19–24, 1988, PART III

Theoretical study of system peaks and elution profiles for large concentration bands in the case of a binary eluent containing a strongly sorbed additive
by S. Golshan-Shirazi and G. Guiochon (Knoxville and Oak Ridge, TN, U.S.A.) 1

Experimental study of system peaks and elution profiles for large concentration bands in the case of a binary eluent containing a strongly sorbed additive
by S. Golshan-Shirazi and G. Guiochon (Knoxville and Oak Ridge, TN, U.S.A.) 19

Dioxanyl hydroperoxide in preparative liquid chromatography
by E. M. Derrico, H. Bush and P. M. Finnegan (Skokie, IL, U.S.A.) 35

Production scale purification of biosynthetic human insulin by reversed-phase high-performance liquid chromatography
by E. P. Kroeff, R. A. Owens, E. L. Campbell, R. D. Johnson and H. I. Marks (Indianapolis, IN, U.S.A.) 45

Analytical performance of process-scale liquid chromatography columns
by T. J. Gentilucci, S. I. Sivakoff and G. B. Cox (Wilmington, DE, U.S.A.) and S. D. Stearns and M. W. Hutchinson (Houston, TX, U.S.A.) 63

Application of an asymmetrical flow field-flow fractionation channel to the separation and characterization of proteins, plasmids, plasmid fragments, polysaccharides and unicellular algae
by K.-G. Wahlund and A. Litzén (Uppsala, Sweden) 73

Gradient elution in hollow-fibre flow field-flow fractionation
by A. Carlshaf and J. Å. Jönsson (Lund, Sweden) 89

Focussing counterparts of electrical field flow fractionation and capillary zone electrophoresis. Electrical hyperlayer field flow fractionation and capillary isoelectric focusing
by W. Thormann, M. A. Firestone, M. L. Dietz, T. Cecconie and R. A. Mosher (Tucson, AZ, U.S.A.) 95

Sedimentation field-flow fractionation of colloidal metal hydrosols
by L. E. Oppenheimer and G. A. Smith (Rochester, NY, U.S.A) 103

Analysis of steroids by capillary supercritical fluid chromatography with phosphorus-selective detection
by P. A. David and M. Novotny (Bloomington, IN, U.S.A.) 111

Enantiomer resolution of D- and L-α-amino acid derivatives by supercritical fluid chromatography on novel chiral diamide phases with carbon dioxide
by A. Dobashi, Y. Dobashi, T. Ono, S. Hara, M. Saito, S. Higashidate and Y. Yamauchi (Tokyo, Japan) 121

Computational chemical studies of chiral stationary phase models. Complexes of methyl N-(2-naphthyl)alaninate with N-(2-naphthyl)alaninate with N-(3,5-dinitrobenzoyl)leucine *n*-propylamide
by S. Topiol and M. Sabio (Cedar Knolls, NJ, U.S.A.) 129

Retention mechanisms on metallic stationary phases
by B. J. Bassler, R. Kaliszan and R. A. Hartwick (Piscataway, NJ, U.S.A.) 139

Measurement of statistical moments of resolved and overlapping chromatographic peaks
by M. S. Jeansonne and J. P. Foley (Baton Rouge, LA, U.S.A.) 149

Generalized treatment of spatial and temporal column parameters, applicable to gas, liquid and supercritical fluid chromatography. I. Theory
by D. E. Martire (Washington, DC, U.S.A.) 165

Modeling octanol–water partition coefficients by reversed-phase liquid chromatography
by D. J. Minick, D. A. Brent and J. Frenz (Research Triangle Park, NC, U.S.A.) 177

Retention mechanisms in reversed-phase chromatography. Stationary phase bonding density and solute selectivity
by K. B. Sentell and J. G. Dorsey (Gainesville, FL, U.S.A.) 193

Retention behaviour of large polycyclic aromatic hydrocarbons in reversed-phase liquid chromatography on a polymeric octadecylsilica stationary phase
by K. Jinno and T. Ibuki (Toyohashi, Japan), N. Tanaka (Kyoto, Japan), M. Okamoto (Tajimi, Japan), J. C. Fetzer and W. R. Biggs (Richmond, CA, U.S.A.) and P. R. Griffiths and J. M. Olinger (Riverside, CA, U.S.A.) 209

Solution properties of polyelectrolytes. IV. Use of a new hydrophilic size-exclusion chromatographic packing for the separation of anionic and cationic polyions
by E. Pérez-Payá, L. Braco, A. Campos, V. Soria and C. Abad (Valencia, Spain) 229

Role of unreacted silanols in the adsorption properties of derivatized silica
by G. Fóti, C. Martinez and E. sz. Kováts (Lausanne, Switzerland) 243

Isocratic reversed-phase high-performance liquid chromatography of ribonucleotides, deoxynucleotides, cyclic nucleotides and deoxycyclic nucleotides
by C. K. Lim and T. J. Peters (Harrow, U.K.) 259

Determination of elastase activity by reversed-phase high-performance liquid chromatography
by T. A. Stein, J. R. Cohen, C. Mandell and L. Wise (New Hyde Park and Stony Brook, NY, U.S.A.) 267

Purification of angiotensin-converting enzyme by gel high-performance liquid chromatography
by Q. C. Meng, S. J. King, Y.-F. Chen, L. J. Delucas and S. Oparil (Birmingham, AL, U.S.A.) 271

Determination of phenylalanine in river water by high-performance liquid chromatography
by P. J. Rennie (Huntington, U.K.) 277

Solvent selectivity effects in reversed-phase high-performance liquid chromatography of flavonoid compounds
by F. Dondi (Ferrara, Italy), Y. D. Kahie (Mogadishu, Somalia) and G. Lodi, G. Blo, C. Pietrogrande and P. Reschiglian (Ferrara, Italy) 281

Separation of thiodiglycol polyethers and related compounds by reversed-phase high-performance liquid chromatography
by D. E. Doster and M. Zentner (Woodstock, IL, U.S.A.) 293

Analytical study of non-ionic surfactants used in enhanced oil recovery. Optimization of analytical conditions in reversed-phase partition chromatography
by P. L. Desbene, B. Desmazieres, J. J. Basselier and A. Desbene-Monvernay (Paris, France) 305

High-performance liquid chromatographic separation of ring-oxidized metabolites of nitro-polyclic aromatic hydrocarbons
by L. S. von Tungeln and P. P. Fu (Jefferson, AR, U.S.A.) 315

Separation of amino- and acetylamino-polycyclic aromatic hydrocarbons by reversed- and normal-phase high-performance liquid chromatography
by J.-S. Lai and S. S. Hung (Taichung, Taiwan), L. E. Unruh, H. Jung and P. P. Fu (Jefferson, AR, U.S.A.) 327

Determination of pyrethroid residues on paddy rice by reversed-phase high-performance liquid chromatography
by P. R. Haddad, J. G. Brayan, G. J. Sharp and S. Dilli (Kensington, Australia) and J. M. Desmarchelier (Canberra, Australia) 337

Hydrocarbon group type analysis of petroleum products by high-performance liquid chromatography on organometallic donor/acceptor-bonded silica
by G. Félix and A. Thienpont (Talence, France) and M. Emmelin and A. Faure (Saint Symphorien d'Ozon, France) 347

Preparation, high-performance liquid chromatographic separation and characterization of hexacarboxylic porphyrinogens
by F. Li, C. K. Lim and T. J. Peters (Harrow, U.K.) 353

High-performance liquid chromatography of oxidation products of 2,6-dimethylphenol
by H. Luetje (Ludwigshafen/Rhein, F.R.G.) 361

Chromatographic properties of a vinyl alcohol copolymer gel column for the analysis of non-ionic surfactants
by K. Noguchi, Y. Yanagihara, M. Kasai and B. Katayama (Kawasaki, Japan) 365

Improved enantiomeric separation of dihydrodiols of polycyclic aromatic hydrocarbons on chiral stationary phases by derivatization to O-methyl ethers
S. K. Yang, M. Mushtaq, Z. Bao, H. B. Weems, M. Shou and X.-L. Lu (Bethesda, MD, U.S.A.) 377

General evaluation and application to trace analysis of a chiral column for ligand-exchange chromatography
by H. Kiniwa, Y. Baba, T. Ishida and H. Katoh (Kanagawa, Japan) 397

Mobile phase optimization of a urea-linked chiral stationary phase for the high-performance liquid chromatographic separation of optical isomers
by S. C. Dhanesar and D. J. Gisch (Bellefonte, PA, U.S.A.) 407

Determination of the enantiomers of α-amino acids and α-amino acid amides by high-performance liquid chromatography with a chiral mobile phase
by A. Duchateau, M. Crombach, M. Aussems and J. Bongers (Geleen, The Netherlands) . 419

Indirect detection in reversed-phase liquid chromatography. Response deviations in ion-pairing systems
by E. Arvidsson (Uppsala, Sweden), J. Crommen (Liège, Belgium) and G. Schill and D. Westerlund (Uppsala, Sweden) 429

Author Index 443

In articles with more than one author, the name of the author to whom correspondence should be addressed is indicated in the article heading by a 6-pointed asterisk (*)